



U.S. Department  
of Transportation

Research and  
Special Programs  
Administration

400 Seventh Street, S.W.  
Washington, D.C. 20590

NOV 3 0 2004

DOT-E 7887  
(FOURTEENTH REVISION)

EXPIRATION DATE: October 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109.)

1. GRANTEE: Estes-Cox Corporation d/b/a Estes Industries  
Penrose, CO  
(FORMER GRANTEE: Centuri Corporation d/b/a Estes  
Industries and Cox)

(See Appendix A to this document for a list of additional  
grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of limited quantities of certain explosive articles in prescribed packaging as Division 4.1 Flammable solid, organic, n.o.s. This exemption applies to small rocket motors (model rocket motors NA0323 and NA0276) and reloadable model rocket motor kits containing not more than 62.5 grams of propellant per device or kit which have been classed as Division 1.4 explosives under § 173.56. These articles may be of the reloadable type or the single-use expendable type. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

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3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 and § 175.3 (only insofar as model rocket motors and reloadable kits which are classed as Division 1.4C or 1.4S may be shipped as Division 4.1).
5. BASIS: This exemption is based on Estes-Cox Corporation d/b/a Estes Industries application dated November 11, 2004, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description/proper shipping name	Hazard Class/Division	Identification Number	Packing Group
Flammable solids, organic, n.o.s. (Model rocket motors and/or rocket motor reloading kits)	4.1	UN1325	II

7. SAFETY CONTROL MEASURES:

a. Rocket motor cases may not be made of a material (e.g., metal) or of a configuration that would present a penetration hazard.

b. PACKAGING -

i. For single-use expendable type devices:

UN Specification 4C1 Boxes of natural wood  
UN Specification 4D Plywood boxes  
UN Specification 4F Boxes of reconstituted wood  
UN Specification 4G Fiberboard boxes

ii. For reloadable-type kits:

Each reloadable kit must be placed in a securely closed plastic bag at least 0.051mm (0.002 inches) thick as the inner packaging. Each inner packaging may contain up to a maximum of 62.5

grams of propellant, 8.3 grams of delay charge and 1.4 grams of ejection charge. No more than 12 inner packagings may be placed in a fiberboard box intermediate packaging which must be packed in a Specification 4G fiberboard box. Intermediate packaging is not required for a package containing 12 or less inner packagings.

- iii. The outer packages may not exceed 11.36 kg. 25 pounds gross weight when the individual devices each contain not more than 30 grams of propellant. They may not exceed 4.55 kg. (10 pounds) gross weight when the individual devices each contain more than 30 grams, but not more than 62.5 grams of propellant.

8. SPECIAL PROVISIONS:

- a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.
- b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.
- c. The devices and kits authorized under this exemption may be shipped in the same outer packaging with Division 1.4G igniters for the devices, and with nonhazardous materials needed to construct model rockets.
- d. The authority to grant the relief provided within this exemption is limited to the extent that the United States government has authority over the transportation of the articles subject to this exemption. Transportation in accordance with this exemption outside of the United States may require the approval of governments of countries where these articles are so transported.
- e. Packages shipped under this exemption may not be offered for transportation as Consumer Commodities, ORM-D.

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9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel or cargo aircraft used to transport packages covered by this exemption. The shipper must furnish a current copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C 5101 et seq.:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.


Each "Hazmat employee", as defined in § 171.8 who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by § 172.700 through § 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving explosion, fire or loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as

practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, persons using this exemption must inform the AAHMS, in writing, of any incidents involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

  
Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

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(DATE)

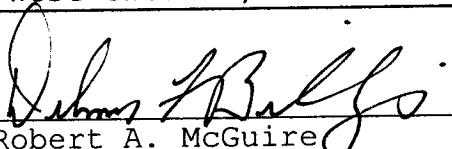
Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: sln

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
AMW South Daytona, FL	Jan 22, 2005	<b>FEB 4 2005</b>	Oct 31, 2006
Composite Propulsion Technology Inc. South Daytona, FL	Jan 22, 2005	<b>FEB 4 2005</b>	Oct 31, 2006
Ellis Mountain Rocket Works Jacksonville, TX	Jan 10, 2005	Jan 19, 2005	Oct 31, 2006
Loki Research, LLC Durham, CT	Nov 18, 2004	Nov 30, 2004	Oct 31, 2006
Quest Aerospace Yuma, AZ	Nov 12, 2004	Dec 10, 2004	Oct 31, 2006
VWR International West Chester, PA	Jan 13, 2005	Jan 27, 2005	Oct 31, 2006

  
Robert A. McGuire

JA Associate Administrator for  
Hazardous Materials Safety